DRAFT SCREENING SITE INVESTIGATION FOR THE STANDARD METAL REFINING SITE 4200 BOSTON AVENUE BALTIMORE, MARYLAND ECKEL SITE NUMBER 294

Prepared for

U.S. Environmental Protection Agency Region 3
Hazardous Site Cleanup Division
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Project No. I4185.47502.0903

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CONTENTS

APPENDIX

1.0 INTRODUCTION

Under Remedial Action Contract (RAC) No. 68-S7-3002, Work Assignment No. 048-PAPA-03ZZ, U.S. Environmental Protection Agency (EPA) Region 3 tasked Tetra Tech, Inc. (Tt), to assist EPA Region 3 in the assessment of properties suspected to have been former lead smelter foundries. Tt subcontracted completion of this work assignment to Tetra Tech EM Inc. (Tetra Tech).

Former lead smelter sites nationwide were identified in an April 2001 article published in the American Journal of Public Health by Eckel, and others (Eckel study) (Reference [Ref.] 1). The majority of these lead smelters operated prior to 1964 and closed before the current environmental regulations were instituted. As part of the Eckel study, soil samples were collected from several of the identified former lead smelter properties. Results from the analysis of these soil samples indicated that concentrations of lead exceeded EPA's recommended screening level for lead in residential soils. The results of the Eckel study indicate that the air disposition of lead into soils from the former smelter operations may present an ongoing public health concern due to exposure of residential populations, especially children, located in the vicinity of these former lead smelters, to soils containing elevated concentrations of lead (Refs. 1, 2, and 3).

The Eckel study identified 77 properties that may have been formerly used as lead smelters within EPA Region 3 (Delaware, District of Columbia, Maryland, Pennsylvania, Virginia, and West Virginia). EPA Region 3 is currently investigating these 77 properties. The objective of EPA's investigation of these properties is to (1) determine the potential for lead-contaminated soil to be present at the former lead smelter site or nearby properties (2) identify any populations that may be at risk to exposure to this soil, and (3) determine if soil sampling is warranted at any of these sites or nearby properties.

The following activities were completed as part of the initial screening investigation of each of these former lead smelter sites: (1) verify the former lead smelter address listed in the Eckel

study through historical Sanborn fire insurance maps, tax parcel information, and/or contacting local agencies, (2) determine if the site is listed in EPA's Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) database, (3) determine through census information and existing maps the number of schools, daycare centers or recreational parks that exist near the former lead smelter site, (4) determine the population residing within a 4-mile radius of the site, (5) conduct a windshield reconnaissance of the site and surrounding area to document the current land use, identify any exposed soil and verify the existence of any schools, daycare centers or parks in the immediate area, and (6) review all information acquired to determine if the collection and analysis of soil samples is warranted at the site or at any nearby property.

This report summarizes the findings of the tasks outlined above for the former lead smelter known as the Standard Metal Refining site located at 4200 Boston Avenue, Baltimore, Maryland 21224. Each former smelter property was given a number in Eckel's study. The Eckel study number for this site is 294 (Ref. 1).

2.0 SITE LOCATION

The former Standard Metal Refining facility was located at 4200 Boston Avenue, Baltimore, Maryland 21224. The geographic coordinates of the former Standard Metal Refining facility are 39.276945 north latitude and 76.561667 west longitude on the Baltimore East, Maryland Quadrangle, 7.5 minute series, United States Geological Survey topographic map (see Appendix A, Figure 1). The site is not currently listed in EPA's CERCLIS database (Ref. 4). An aerial photograph of the vicinity of the former lead smelter site has been included in Appendix A, Figure 2. This aerial photograph reveals the exposed soils and any identified areas of potential concern such as schools, daycare centers, or parks located within a half-mile radius of the site.

3.0 SITE OBSERVATIONS

On January 24, 2006, Tetra Tech completed a non-sampling windshield reconnaissance of the Standard Metal Refining site and surrounding area. A photographic record of the current site conditions is included in Appendix B. Figure 3, shows the current layout of the site and surrounding area as observed during Tetra Tech's site reconnaissance. The following observations were recorded:

- The site is located in an area of Baltimore occupied primarily by industrial properties. Residential areas are located greater than one-half mile to the northwest and northeast of the former site.

- The property is currently occupied by Baltimore Quality Assurance, located approximately 350 feet west of the intersection of South Newkirk Street and Boston Avenue, on the north side of Boston Avenue. According to the manager, Baltimore Quality Assurance has occupied the property for more than 17 years. A stack is currently in use at the subject property that was built by Baltimore Quality Assurance in October 1988. Baltimore Quality Assurance has applied for an air permit with the state of Maryland.

- No exposed soils were observed on the former lead smelter property.

- Overflo Public Warehouse is located directly north of the site. Multiple sets of railroad tracks run north-south along the western border of the site. A single track runs northeast-southwest along the eastern border. Canton Railroad Company – Boston Street Bulk Terminal is located across Boston Avenue to the south.

- Approximately 26 acres of open grassland is located southeast of the site.

- No daycare facilities, parks, or schools were identified directly surrounding the site.

4.0 POTENTIAL TARGETS

Potential targets identified that may be exposed to lead-contaminated soils remaining in the vicinity of the former Standard Metal Refining site include workers that may be employed at or in the nearby vicinity of the former lead smelter site. The residential population within a 4-mile radius of the site is summarized in the table below (Ref. 5).

Population Within a Four-mile Radius of the Site

Distance Ring (miles)	Population (number of persons)
0.0 to 0.25	0
0.25 to 0.5	288
0.5 to 1.0	38,632
1.0 to 2.0	140,582
2.0 to 3.0	180,356
3.0 to 4.0	199,841

Source: U.S. Department of Commerce. Landview V Environmental Mapping Software based on the Bureau of Census 2000 Population Data. December 9, 2005.

No daycare facilities, parks, or schools have been identified directly surrounding the site. No schools or parks have been identified within one-half mile of the site.

5.0 FINDINGS AND RECOMMENDATIONS

The site is located in an area of Baltimore occupied primarily by industrial development. No exposed soils were observed at the address of the former lead smelter. Exposed soils were observed in the nearby vicinity; however, no daycare facilities, parks, schools or residences were identified in this area. The potential targets identified in this are is limited to adult workers. Due to the limited number of targets identified and the current conditions of the site (covered with asphalt and the existing building) no soil sampling is recommended at this time.

REFERENCES

1. Eckel, W.P., Rabinowitz, M.B., Foster, G.D. American Journal of Public Health. "Discovering Unrecognized Lead-Smelting Sites by Historical Methods". April 2001.
2. Pennsylvania Department of Health. Suspected Former Lead Smelter Sites: A Potential Risk Factor for Childhood Lead Poisoning. August 2004.
3. U.S. Environmental Protection Agency (EPA). Revised Interim Soil Lead Guidance for CERCLA Sites and RCRA Corrective Action Facilities. OSWER Directive 9355.4-12. July 14, 1994.
4. U.S. EPA. Comprehensive Environmental Response, Compensation, and Liability Act Information System (CERCLIS) database. On-Line Address: http://cfpub.epa.gov/supercpad/cursites/srchsites.cfm
5. U.S. Census Bureau. State and County Quick Facts. Accessed On-Line on December 9, 2005. On-Line Address: quickfacts.census.gov/qfd/states/42.html.

Appendix A

Figures

0 1,000 2,000 Feet

Scale in Feet

Standard Metal Refining
4200 Boston Road
Baltimore, Maryland
Eckel Site No. 294

N W E S

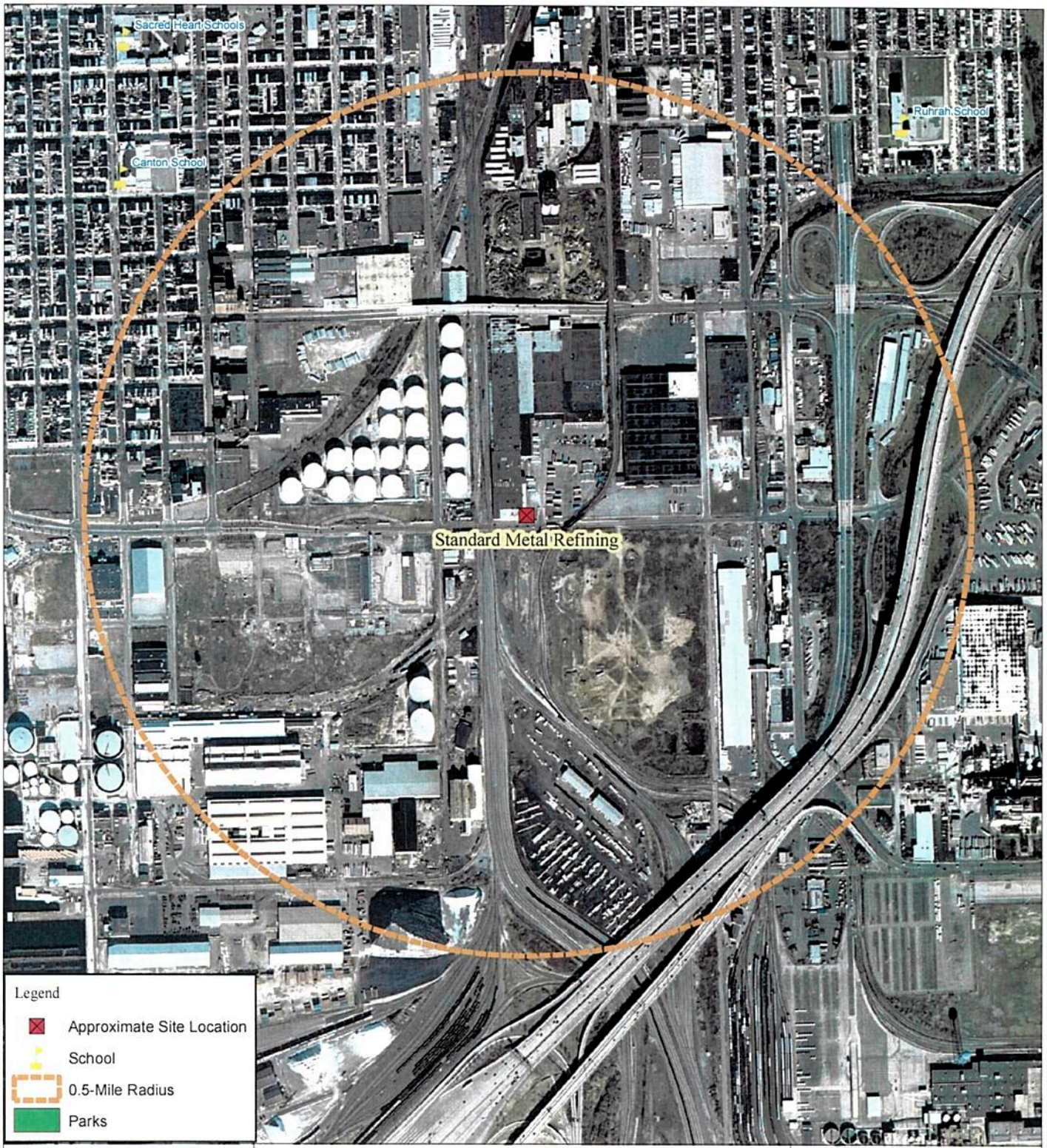
EPA

Figure 1
Site Location Map

Source: Modified from USGS, Baltimore East, Maryland Quadrangle, 1974.

TETRA TECH EM INC.

2006-03-08 s:\cadd\041854750209\03\mxd\294_standardmetal_fig1.mxd TTEMI-NV joelpeters



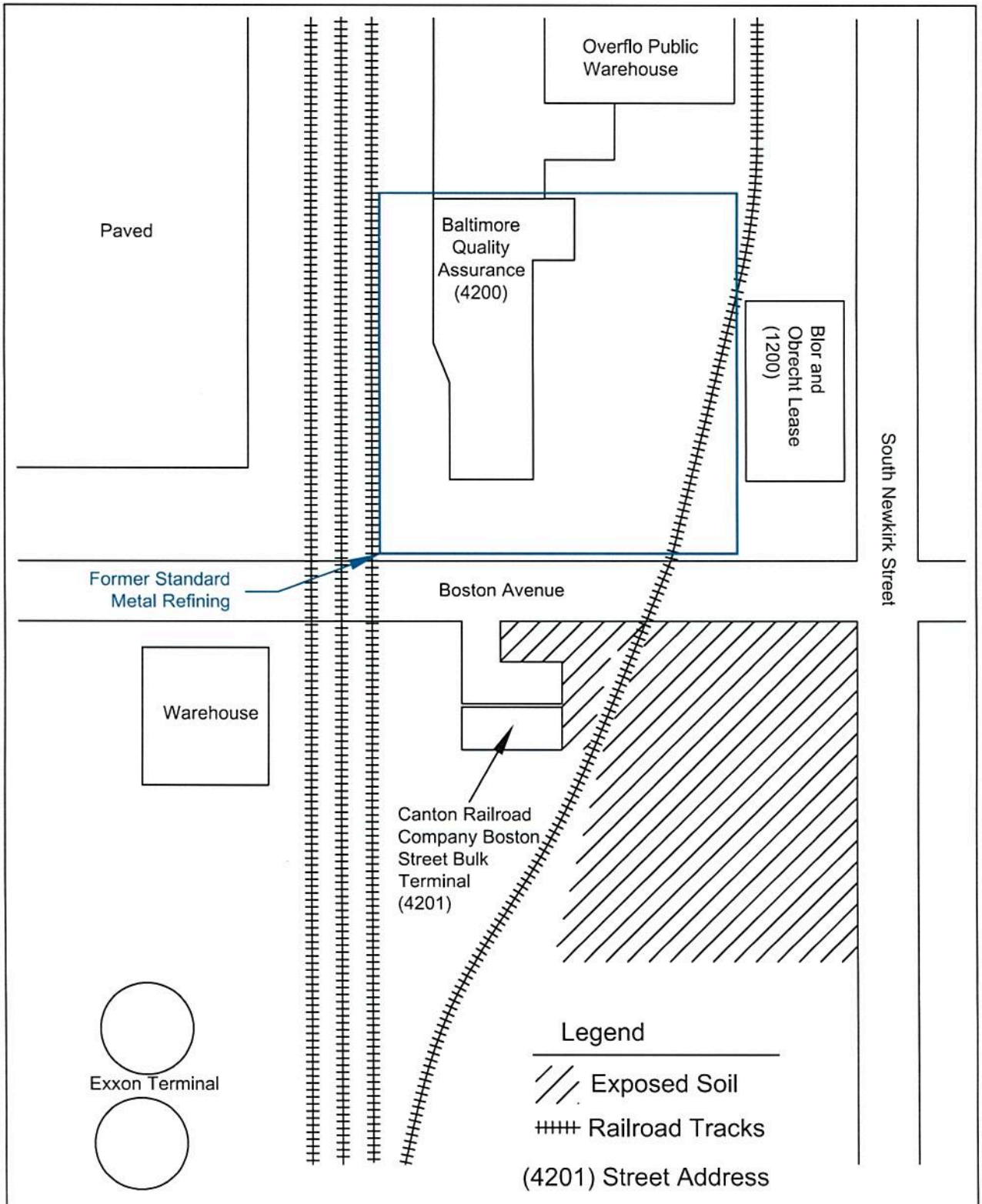
Standard Metal Refining
4200 Boston Road
Baltimore, Maryland
Eckel Site No. 294

Figure 2
Aerial Photograph

Source: Modified from USGS, 2002, and ESRI, 2005.

EPA

TETRA TECH EM INC.



Not to Scale	Standard Metal Refining 4200 Boston Road Baltimore, Maryland Eckel Site No. 294	N W E S
EPA	**Figure 3** Site Layout Map	TETRA TECH EM INC.

Appendix B

Photographic Documentation

Photographic Documentation

Site Name: Standard Metal Refining Eckel Number 294
Location: 4200 Boston Avenue, Baltimore, Maryland

Prepared by: Tetra Tech EM Inc.
Photographer: Erik Armistead

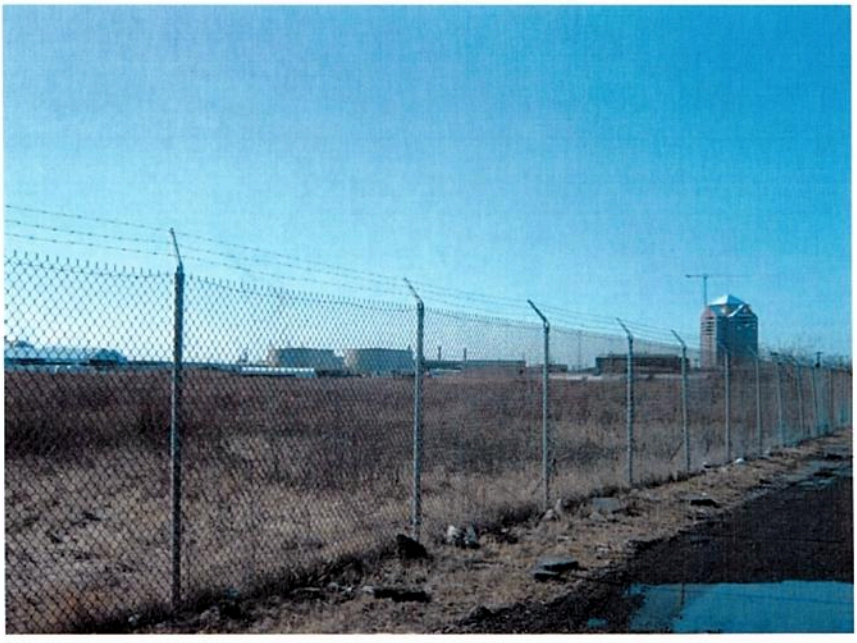
Photograph No. 1

Photograph Date: January 24, 2006

Description: Current structure located at 4200 Boston Avenue. Occupied by Baltimore Quality Assurance.

Photograph No. 2

Photograph Date: January 24, 2006



Description: View of grassy area southeast of the site.

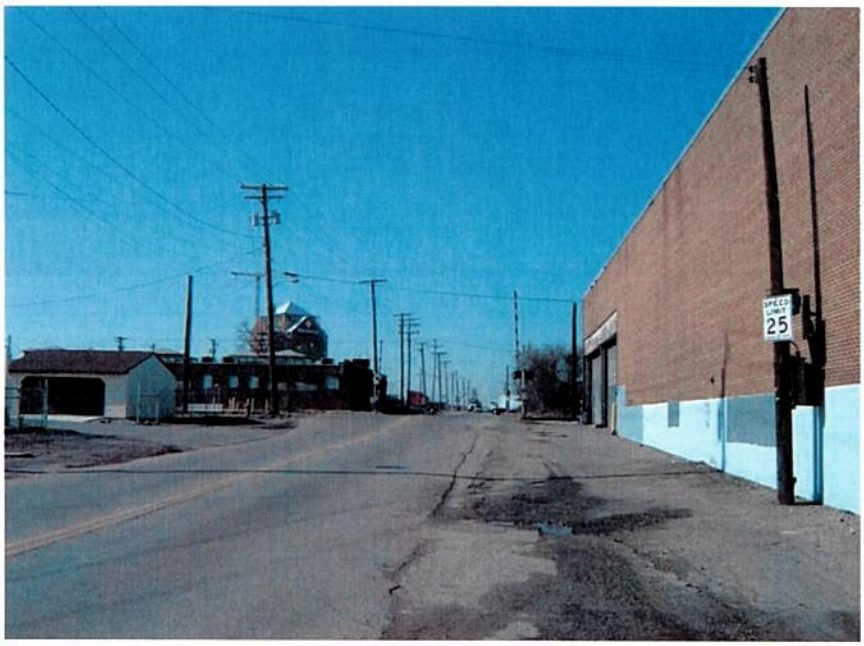
Photographic Documentation

Site Name: Standard Metal Refining Eckel Number 294
Location: 4200 Boston Avenue, Baltimore, Maryland

Prepared by: Tetra Tech EM Inc.
Photographer: Erik Armistead

Photograph No. 3

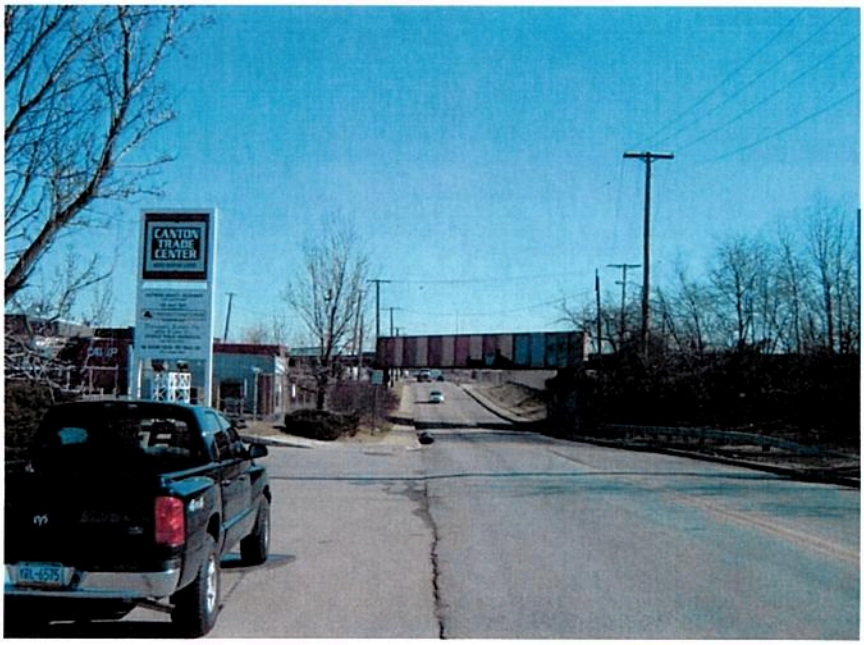
Photograph Date: January 24, 2006



Description: View of Boston Avenue looking west from the front of the site.

Photograph No. 4

Photograph Date: January 24, 2006



Description: View of Boston Avenue looking east from the front of the site.